

# United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
10/646,253	08/22/2003	Nicolas Pondicq-Cassou	60246-214	9419		
26096 7.	590 06/14/2005		EXAM	EXAMINER		
CARLSON, C	GASKEY & OLDS, P.C.	JIANG, CHEN WEN				
SUITE 350	II LL ROAD		ART UNIT	PAPER NUMBER		
BIRMINGHAN	M, MI 48009		3744			
			D. 1777 1 ( . 11 P.D. 0 ( // 1/200			

DATE MAILED: 06/14/2005

١

Please find below and/or attached an Office communication concerning this application or proceeding.

	A 1: 4: -	- N.	A 11 1/1 1					
	Applicatio	n No.	Applicant(s)	•				
	10/646,25	3	PONDICQ-CASSOU ET AL.					
Office Action Summary	Examiner		Art Unit					
	Chen-Wen		3744	-				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply								
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).								
Status			-					
1) Responsive to communication(s) filed on 24 I	March 2005.							
·	,—							
Disposition of Claims				;				
<ul> <li>4)  Claim(s) 1,2,4-13 and 18-20 is/are pending in the application.</li> <li>4a) Of the above claim(s) 9-11 and 13 is/are withdrawn from consideration.</li> <li>5)  Claim(s) 12 is/are allowed.</li> <li>6)  Claim(s) 1,2,4-8 and 18-20 is/are rejected.</li> <li>7)  Claim(s) is/are objected to.</li> <li>8)  Claim(s) are subject to restriction and/or election requirement.</li> </ul>								
Application Papers		÷	_					
9) ☐ The specification is objected to by the Examiner.  10) ☑ The drawing(s) filed on 18 May 2004 is/are: a) ☑ accepted or b) ☐ objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.								
Priority under 35 U.S.C. § 119								
<ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>								
Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08 Paper No(s)/Mail Date 20050118.	8)	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:	ate	-152)				

#### **DETAILED ACTION**

## Response to Arguments

1. The amendments, arguments and affidavit presented by the applicant have been duly noted. In view of such, the previous rejections in the first office action have been withdrawn. However, an update search and further review of the prior art of record has prompted the presentation of new rejections presented below.

## Claim Rejections - 35 USC § 103

- 2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 3. Claims 1,2,4-8,18,19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stensrud et al. (U.S. 2002/0095944) in view of Kuroki et al. (U.S. Patent Number 6,418,737).

In regard to claims 1,4,5,18 and 19, Stensrud et al. disclose a refrigeration system comprising a compressor 62, a heat rejecting heat exchanger 82, an expansion device 38, a heat accepting heat exchanger 22 and a refrigerant bypass 70 with a control valve 76. During defrost cycle, controller 30 close valve 74, open valve 76 and supply refrigerant via bypass 70 and supply line 54 to evaporator 22 thru valves 42 and 46. However, Stensrud et al. do not disclose a detecting sensor. Kuroki et al. disclose a detecting sensor in the same field of endeavor for the

Art Unit: 3744

purpose of controlling defrost. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the apparatus of Franck et al. with a sensor in view of Kuroki et al. so as to control defrost operation. Under the principals of inherency, if a prior art device, in its normal and usual operation, would necessarily perform the method claimed, then the method claimed will be considered to be anticipated by the prior art device. When the prior art device is the same as a device described in the specification for carrying out the claimed method, it can be assumed the device will inherently perform the claimed process. *Ir re King*, 801 F.2d 1324, 231 USPQ 136 (Fed. Cir. 1986).

In regard to claim 6, Kuroki et al. disclose a pump 3 in the heat rejection circuit.

In regard to claim 2, Kuroki et al. disclose the refrigerant perform heat exchange with water.

In regard to claim 7, Kuroki et al. disclose the water pump 3 is stopped during defrosting operation.

In regard to claims 8 and 20, Kuroki et al. disclose the refrigerant is carbon dioxide.

## Allowable Subject Matter

- 4. Claim 12 is allowed.
- 5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chen-Wen Jiang whose telephone number is (571) 272-4809. The examiner can normally be reached on Tuesday-Friday from 8:00 to 6:30.

Art Unit: 3744

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on (571) 272-4834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chen-Wen Jiang **Primary Examiner**